SEQUENCE LISTING

<110> Gonsalves, Dennis
Meng, Baozhong

<120> RUPESTRIS STEM PITTING ASSOCIATED VIRUS
NUCLEIC ACIDS, PROTEINS, AND THEIR USES

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<150> 60/047,147
<151> 1997-05-20

<150> 60/069,902
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ctcctggcga ggtcaaaagg tcccttggat gccgttttgg tttccagttt tgaggagaaa 4680
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atggagtcag aatgctcaaa tgaagaatgg tttaaaaccc acatcccctt gagtaatctg 5160
gagtcaacca gggccaggtg ggtgggtaaa atggccttga aagagtatcg ggaggtgcgt 5220
tgtggttatg aaatgactca acaattcttt gatgagcata ggggtggaac tggtgagcaa 5280
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gttcgctttg caccctatat gagatacatt gagaaaaagc taatgcaagc tctgaagcct 5760
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gattcactgg aatttgcaca gaatcagact acgaagcctt tgatgcttcc caagaccact 5880
tcatcctagc attcgaattg cagataatga aatttttggg gttacctgaa gatttaattt 5940
tggactatga attcataaaa attcatttgg gatcaaagct cggatcattc tctataatga 6000
ggtttactgg ggaggccagc acatttctgt ttaacactat ggctaacatg ttgttcacct 6060
ttctgaggta cgaactaaca ggctctgagt caatagcatt tgcaggtgat gacatgtgtg 6120
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ggatcttcaa gaagcctcaa ttaatctggg agcggatatg cattgctagg gagatgggca 6300
acctggagaa ttgtattgac aattatgcga tagaggtctc ctatgcatac cgactgggag 6360
agctagccat tgaaatgatg accgaggaag aagtggaggc ccattataat tgtgttagat 6420
tcttggtcag gaacaagcat aagatgagat gctcaatttc aggcctattt gaagctattg 6480
attag 6485

<210> 3
<211> 2161
<212> PRT
<213> Rupestris stem pitting associated virus

<400> 3

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Met Ala Leu Ser Tyr Arg Pro Ala Val Glu Glu Val Leu Ala Lys Phe
 1               5                  10                  15
Thr Ser Asp Glu Gln Ser Arg Val Ser Ala Thr Ala Leu Lys Ala Leu
            20                  25                  30
Val Asp Leu Glu Glu Ser Gln His Asn Leu Phe Ser Phe Ala Leu Pro
        35                  40                  45
Asp Arg Ser Lys Glu Arg Leu Ile Ser Ser Gly Ile Tyr Leu Ser Pro
    50                  55                  60
Tyr Ser Phe Arg Pro His Ser His Pro Val Cys Lys Thr Leu Glu Asn
65                  70                  75                  80
His Ile Leu Tyr Asn Val Leu Pro Ser Tyr Val Asn Asn Ser Phe Tyr
                85                  90                  95
Phe Val Gly Ile Lys Asp Phe Lys Leu Gln Phe Leu Lys Arg Arg Asn
            100                 105                 110
Lys Asp Leu Ser Leu Val Ala Leu Ile Asn Arg Phe Val Thr Ser Arg
        115                 120                 125
Asp Val Ser Arg Tyr Gly Ser Glu Phe Val Ile Ser Ser Ser Asp Lys
    130                 135                 140
Ser Ser Gln Val Val Ser Arg Lys Gly Ile Gly Asp Ser Asn Thr Leu
145                 150                 155                 160
Arg Arg Leu Val Pro Arg Val Ile Ser Thr Gly Ala Arg Asn Leu Phe
                165                 170                 175
Leu His Asp Glu Ile His Tyr Trp Ser Ile Ser Asp Leu Ile Asn Phe
            180                 185                 190
Leu Asp Val Ala Lys Pro Ser Met Leu Leu Ala Thr Ala Val Ile Pro
        195                 200                 205
Pro Glu Val Leu Val Gly Ser Pro Glu Ser Leu Asn Pro Trp Ala Tyr
    210                 215                 220
Gln Tyr Lys Ile Asn Gly Asn Gln Leu Leu Phe Ala Pro Asp Gly Asn
225                 230                 235                 240
Trp Asn Glu Met Tyr Ser Gln Pro Leu Ser Cys Arg Tyr Leu Leu Lys
                245                 250                 255
Ala Arg Ser Val Val Leu Pro Asp Gly Ser Arg Tyr Ser Val Asp Ile
            260                 265                 270
Ile His Ser Lys Phe Ser His His Leu Leu Ser Phe Thr Pro Met Gly
        275                 280                 285
Asn Leu Leu Thr Ser Asn Met Arg Cys Phe Ser Gly Phe Asp Ala Ile
    290                 295                 300
Gly Ile Lys Asp Leu Glu Pro Leu Ser Arg Gly Met His Ser Cys Phe
305                 310                 315                 320
Pro Val His His Asp Val Val Thr Lys Ile Tyr Leu Tyr Leu Arg Thr
                325                 330                 335
Leu Lys Lys Pro Asp Lys Glu Ser Ala Glu Ala Lys Leu Arg Gln Leu
            340                 345                 350
Ile Glu Lys Pro Thr Gly Arg Glu Ile Lys Phe Ile Glu Asp Phe Ser
        355                 360                 365
Ser Leu Val Ile Asn Cys Gly Arg Ser Gly Ser Leu Leu Met Pro Asn
    370                 375                 380
Ile Ser Lys Leu Val Ile Ser Phe Phe Cys Arg Met Met Pro Asn Ala
385                 390                 395                 400
Leu Ala Arg Leu Ser Ser Ser Phe Arg Glu Cys Ser Leu Asp Ser Phe
```

```
                405                 410                 415
Val Tyr Ser Leu Glu Pro Phe Asn Phe Ser Val Asn Leu Val Asp Ile
            420                 425                 430
Thr Pro Asp Phe Phe Glu His Leu Phe Leu Phe Ser Cys Leu Asn Glu
        435                 440                 445
Leu Ile Glu Glu Asp Val Glu Glu Val Met Asp Asn Ser Trp Phe Gly
    450                 455                 460
Leu Gly Asp Leu Gln Phe Asn Arg Gln Arg Ala Pro Phe Phe Leu Gly
465                 470                 475                 480
Ser Ser Tyr Trp Leu Asn Ser Lys Phe Ser Val Glu His Lys Phe Ser
                485                 490                 495
Gly Thr Ile Asn Ser Gln Ile Met Gln Val Ile Leu Ser Leu Ile Pro
            500                 505                 510
Phe Ser Asp Asp Pro Thr Phe Arg Pro Ser Ser Thr Glu Val Asn Leu
        515                 520                 525
Ala Leu Ser Glu Val Lys Ala Ala Leu Glu Ala Thr Gly Gln Ser Lys
    530                 535                 540
Leu Phe Arg Phe Leu Val Asp Asp Cys Ala Met Arg Glu Val Arg Ser
545                 550                 555                 560
Ser Tyr Lys Val Gly Leu Phe Lys His Ile Lys Ala Leu Thr His Cys
                565                 570                 575
Phe Asn Ser Cys Gly Leu Gln Trp Phe Leu Leu Arg Gln Arg Ser Asn
            580                 585                 590
Leu Lys Phe Leu Lys Asp Arg Ala Ser Ser Phe Ala Asp Leu Asp Cys
        595                 600                 605
Glu Val Ile Lys Val Tyr Gln Leu Val Thr Ser Gln Ala Ile Leu Pro
    610                 615                 620
Glu Ala Leu Leu Ser Leu Thr Lys Val Phe Val Arg Asp Ser Asp Ser
625                 630                 635                 640
Lys Gly Val Ser Ile Pro Arg Leu Val Ser Arg Asn Glu Leu Glu Glu
                645                 650                 655
Leu Ala His Pro Ala Asn Ser Ala Leu Glu Glu Pro Gln Ser Val Asp
            660                 665                 670
Cys Asn Ala Gly Arg Val Gln Ala Ser Val Ser Ser Ser Gln Gln Leu
        675                 680                 685
Ala Asp Thr His Ser Leu Gly Ser Val Lys Ser Ser Ile Glu Thr Ala
    690                 695                 700
Asn Lys Ala Phe Asn Leu Glu Glu Leu Arg Ile Met Ile Arg Val Leu
705                 710                 715                 720
Pro Glu Asp Phe Asn Trp Val Ala Lys Asn Ile Gly Phe Lys Asp Arg
                725                 730                 735
Leu Arg Gly Arg Gly Ala Ser Phe Phe Ser Lys Pro Gly Ile Ser Cys
            740                 745                 750
His Ser Tyr Asn Gly Gly Ser His Thr Ser Leu Gly Trp Pro Lys Phe
        755                 760                 765
Met Asp Gln Ile Leu Ser Ser Thr Gly Gly Arg Asn Tyr Tyr Asn Ser
    770                 775                 780
Cys Leu Ala Gln Ile Tyr Glu Glu Asn Ser Lys Leu Ala Leu His Lys
785                 790                 795                 800
Asp Asp Glu Ser Cys Tyr Glu Ile Gly His Lys Val Leu Thr Val Asn
                805                 810                 815
```

Leu Ile Gly Ser Ala Thr Phe Thr Ile Ser Lys Ser Arg Asn Leu Val
820 825 830
Gly Gly Asn His Cys Ser Leu Thr Ile Gly Pro Asn Glu Phe Phe Glu
835 840 845
Met Pro Arg Gly Met Gln Cys Asn Tyr Phe His Gly Val Ser Asn Cys
850 855 860
Thr Pro Gly Arg Val Ser Leu Thr Phe Arg Arg Gln Lys Leu Glu Asp
865 870 875 880
Asp Asp Leu Ile Phe Ile Asn Pro Gln Val Pro Ile Glu Leu Asn His
885 890 895
Glu Lys Leu Asp Arg Ser Met Trp Gln Met Gly Leu His Gly Ile Lys
900 905 910
Lys Ser Ile Ser Met Asn Gly Thr Ser Phe Thr Ser Asp Leu Cys Ser
915 920 925
Cys Phe Ser Cys His Asn Phe His Lys Phe Lys Asp Leu Ile Asn Asn
930 935 940
Leu Arg Leu Ala Leu Gly Ala Gln Gly Leu Gly Gln Cys Asp Arg Val
945 950 955 960
Val Phe Ala Thr Thr Gly Pro Gly Leu Ser Lys Val Leu Glu Met Pro
965 970 975
Arg Ser Lys Lys Gln Ser Ile Leu Val Leu Glu Gly Ala Leu Ser Ile
980 985 990
Glu Thr Asp Tyr Gly Pro Lys Val Leu Gly Ser Phe Glu Val Phe Lys
995 1000 1005
Gly Asp Phe His Ile Lys Lys Met Glu Glu Gly Ser Ile Phe Val Ile
1010 1015 1020
Thr Tyr Lys Ala Pro Ile Arg Ser Thr Gly Arg Leu Arg Val His Ser
1025 1030 1035 1040
Ser Glu Cys Ser Phe Ser Gly Ser Lys Glu Val Leu Leu Gly Cys Gln
1045 1050 1055
Ile Glu Ala Cys Ala Asp Tyr Asp Ile Asp Asp Phe Asn Thr Phe Ser
1060 1065 1070
Val Pro Gly Asp Gly Asn Cys Phe Trp His Ser Val Gly Phe Leu Leu
1075 1080 1085
Ser Thr Asp Gly Leu Ala Leu Lys Ala Gly Ile Arg Ser Phe Val Glu
1090 1095 1100
Ser Glu Arg Leu Val Ser Pro Asp Leu Ser Ala Pro Ala Ile Ser Lys
1105 1110 1115 1120
Gln Leu Glu Glu Asn Ala Tyr Ala Glu Asn Glu Met Ile Ala Leu Phe
1125 1130 1135
Cys Ile Arg His His Val Arg Pro Ile Val Ile Thr Pro Glu Tyr Glu
1140 1145 1150
Val Ser Trp Lys Phe Gly Glu Gly Glu Trp Pro Leu Cys Gly Ile Leu
1155 1160 1165
Cys Leu Lys Ser Asn His Phe Gln Pro Cys Ala Pro Leu Asn Gly Cys
1170 1175 1180
Met Ile Thr Ala Ile Ala Ser Ala Leu Gly Arg Arg Glu Val Asp Val
1185 1190 1195 1200
Leu Asn Tyr Leu Cys Arg Pro Ser Thr Asn His Ile Phe Glu Glu Leu
1205 1210 1215
Cys Gln Gly Gly Gly Leu Asn Met Met Tyr Leu Ala Glu Ala Phe Glu

1220 1225 1230
Ala Phe Asp Ile Cys Ala Lys Cys Asp Ile Asn Gly Glu Ile Glu Val
1235 1240 1245
Ile Asn Pro Cys Gly Lys Ile Ser Ala Leu Phe Asp Ile Thr Asn Glu
1250 1255 1260
His Ile Arg His Val Glu Lys Ile Gly Asn Gly Pro Gln Ser Ile Lys
1265 1270 1275 1280
Val Asp Glu Leu Arg Lys Val Lys Arg Ser Ala Leu Asp Phe Leu Ser
1285 1290 1295
Met Asn Gly Ser Lys Ile Thr Tyr Phe Pro Ser Phe Glu Arg Ala Glu
1300 1305 1310
Lys Leu Gln Gly Cys Leu Leu Gly Gly Leu Thr Gly Val Ile Ser Asp
1315 1320 1325
Glu Lys Phe Ser Asp Ala Lys Pro Trp Leu Ser Gly Ile Ser Thr Thr
1330 1335 1340
Asp Ile Lys Pro Arg Glu Leu Thr Val Val Leu Gly Thr Phe Gly Ala
1345 1350 1355 1360
Gly Lys Ser Phe Leu Tyr Lys Ser Phe Met Lys Arg Ser Glu Gly Lys
1365 1370 1375
Phe Val Thr Phe Val Ser Pro Arg Arg Ala Leu Ala Asn Ser Ile Lys
1380 1385 1390
Asn Asp Leu Glu Met Asp Asp Ser Cys Lys Val Ala Lys Ala Gly Arg
1395 1400 1405
Ser Lys Lys Glu Gly Trp Asp Val Val Thr Phe Glu Val Phe Leu Arg
1410 1415 1420
Lys Val Ala Gly Leu Lys Ala Gly His Cys Val Ile Phe Asp Glu Val
1425 1430 1435 1440
Gln Leu Phe Pro Pro Gly Tyr Ile Asp Leu Cys Leu Leu Ile Ile Arg
1445 1450 1455
Ser Asp Ala Phe Ile Ser Leu Ala Gly Asp Pro Cys Gln Ser Thr Tyr
1460 1465 1470
Asp Ser Gln Lys Asp Arg Ala Ile Leu Gly Ala Glu Gln Ser Asp Ile
1475 1480 1485
Leu Arg Leu Leu Glu Gly Lys Thr Tyr Arg Tyr Asn Ile Glu Ser Arg
1490 1495 1500
Arg Phe Val Asn Pro Met Phe Glu Ser Arg Leu Pro Cys His Phe Lys
1505 1510 1515 1520
Lys Gly Ser Met Thr Ala Ala Phe Ala Asp Tyr Ala Ile Phe His Asn
1525 1530 1535
Met His Asp Phe Leu Leu Ala Arg Ser Lys Gly Pro Leu Asp Ala Val
1540 1545 1550
Leu Val Ser Ser Phe Glu Glu Lys Lys Ile Val Gln Ser Tyr Phe Gly
1555 1560 1565
Met Lys Gln Leu Thr Leu Thr Phe Gly Glu Ser Thr Gly Leu Asn Phe
1570 1575 1580
Lys Asn Gly Gly Ile Leu Ile Ser His Asp Ser Phe His Thr Asp Asp
1585 1590 1595 1600
Arg Arg Trp Leu Thr Ala Leu Ser Arg Phe Ser His Asn Leu Asp Leu
1605 1610 1615
Val Asn Ile Thr Gly Leu Arg Val Glu Ser Phe Leu Ser His Phe Ala
1620 1625 1630

Gly Lys Pro Leu Tyr His Phe Leu Thr Ala Lys Ser Gly Glu Asn Val
1635 1640 1645
Ile Arg Asp Leu Leu Pro Gly Glu Pro Asn Phe Phe Ser Gly Phe Asn
1650 1655 1660
Val Ser Ile Gly Lys Asn Glu Gly Val Arg Glu Glu Lys Leu Cys Gly
1665 1670 1675 1680
Asp Pro Trp Leu Lys Val Met Leu Phe Leu Gly Gln Asp Glu Asp Cys
1685 1690 1695
Glu Val Glu Glu Met Glu Ser Glu Cys Ser Asn Glu Glu Trp Phe Lys
1700 1705 1710
Thr His Ile Pro Leu Ser Asn Leu Glu Ser Thr Arg Ala Arg Trp Val
1715 1720 1725
Gly Lys Met Ala Leu Lys Glu Tyr Arg Glu Val Arg Cys Gly Tyr Glu
1730 1735 1740
Met Thr Gln Gln Phe Phe Asp Glu His Arg Gly Gly Thr Gly Glu Gln
1745 1750 1755 1760
Leu Ser Asn Ala Cys Glu Arg Phe Glu Ser Ile Tyr Pro Arg His Lys
1765 1770 1775
Gly Asn Asp Ser Ile Thr Phe Leu Met Ala Val Arg Lys Arg Leu Lys
1780 1785 1790
Phe Ser Lys Pro Gln Val Glu Ala Ala Lys Leu Arg Arg Ala Lys Pro
1795 1800 1805
Tyr Gly Lys Phe Leu Leu Asp Ser Phe Leu Ser Lys Ile Pro Leu Lys
1810 1815 1820
Ala Ser His Asn Ser Ile Met Phe His Glu Ala Val Gln Glu Phe Glu
1825 1830 1835 1840
Ala Lys Lys Ala Ser Lys Ser Ala Ala Thr Ile Glu Asn His Ala Gly
1845 1850 1855
Arg Ser Cys Arg Asp Trp Leu Leu Asp Val Ala Leu Ile Phe Met Lys
1860 1865 1870
Ser Gln His Cys Thr Lys Phe Asp Asn Arg Leu Arg Val Ala Lys Ala
1875 1880 1885
Gly Gln Thr Leu Ala Cys Phe Gln His Ala Val Leu Val Arg Phe Ala
1890 1895 1900
Pro Tyr Met Arg Tyr Ile Glu Lys Lys Leu Met Gln Ala Leu Lys Pro
1905 1910 1915 1920
Asn Phe Tyr Ile His Ser Gly Lys Gly Leu Asp Glu Leu Asn Glu Trp
1925 1930 1935
Val Arg Thr Arg Gly Phe Thr Gly Ile Cys Thr Glu Ser Asp Tyr Glu
1940 1945 1950
Ala Phe Asp Ala Ser Gln Asp His Phe Ile Leu Ala Phe Glu Leu Gln
1955 1960 1965
Ile Met Lys Phe Leu Gly Leu Pro Glu Asp Leu Ile Leu Asp Tyr Glu
1970 1975 1980
Phe Ile Lys Ile His Leu Gly Ser Lys Leu Gly Ser Phe Ser Ile Met
1985 1990 1995 2000
Arg Phe Thr Gly Glu Ala Ser Thr Phe Leu Phe Asn Thr Met Ala Asn
2005 2010 2015
Met Leu Phe Thr Phe Leu Arg Tyr Glu Leu Thr Gly Ser Glu Ser Ile
2020 2025 2030
Ala Phe Ala Gly Asp Asp Met Cys Ala Asn Arg Arg Leu Arg Leu Lys

```
        2035                2040                2045
Thr Glu His Glu Gly Phe Leu Asn Met Ile Cys Leu Lys Ala Lys Val
    2050                2055                2060
Gln Phe Val Ser Asn Pro Thr Phe Cys Gly Trp Cys Leu Phe Lys Glu
2065                2070                2075                2080
Gly Ile Phe Lys Lys Pro Gln Leu Ile Trp Glu Arg Ile Cys Ile Ala
                2085                2090                2095
Arg Glu Met Gly Asn Leu Glu Asn Cys Ile Asp Asn Tyr Ala Ile Glu
            2100                2105                2110
Val Ser Tyr Ala Tyr Arg Leu Gly Glu Leu Ala Ile Glu Met Met Thr
        2115                2120                2125
Glu Glu Glu Val Glu Ala His Tyr Asn Cys Val Arg Phe Leu Val Arg
    2130                2135                2140
Asn Lys His Lys Met Arg Cys Ser Ile Ser Gly Leu Phe Glu Ala Ile
2145                2150                2155                2160
Asp
```

<210> 4
<211> 663
<212> DNA
<213> Rupestris stem pitting associated virus

<400> 4

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atgaataatt tagttaaagc attgtcagca tttgagtttg taggtgtttt cagtgtgctt      60
aaatttccag tagtcattca tagtgtgcct ggtagtggta aaagtagttt aataagggag     120
ctaatttccg aggatgagaa tttcatagct ttcacagcag gtgttccaga cagccctaat     180
ctcacaggaa ggtacattaa gccttattct ccagggtgtg cagtgccagg gaaagttaat     240
atacttgatg agtacttgtc cgtccaagat ttttcaggtt ttgatgtgct gttctcggac     300
ccataccaaa acatcagcat tcctaaagag gcacatttca tcaagtcaaa aacttgtagg     360
tttggcgtga atacttgcaa atatctttcc tccttcggtt ttaaggttag cagtgacggt     420
ttggacaaag tcattgtggg gtcgcctttt acactagatg ttgaaggggt gctaatatgc     480
tttggtaagg aggcagtgga tctcgctgtt gcgcacaact ctgaattcaa attaccttgt     540
gaagttagag gttcaacttt taacgtcgta actcttttga aatcaagaga tccaacccca     600
gaggataggc actggtttta cattgctgct acaagacaca gggagaaatt gataatcatg     660
cag                                                                   663
```

<210> 5
<211> 221
<212> PRT
<213> Rupestris stem pitting associated virus

<400> 5

```
Met Asn Asn Leu Val Lys Ala Leu Ser Ala Phe Glu Phe Val Gly Val
 1               5                  10                  15
Phe Ser Val Leu Lys Phe Pro Val Val Ile His Ser Val Pro Gly Ser
            20                  25                  30
Gly Lys Ser Ser Leu Ile Arg Glu Leu Ile Ser Glu Asp Glu Asn Phe
        35                  40                  45
Ile Ala Phe Thr Ala Gly Val Pro Asp Ser Pro Asn Leu Thr Gly Arg
    50                  55                  60
```

```
Tyr Ile Lys Pro Tyr Ser Pro Gly Cys Ala Val Pro Gly Lys Val Asn
65                  70                  75                  80
Ile Leu Asp Glu Tyr Leu Ser Val Gln Asp Phe Ser Gly Phe Asp Val
                85                  90                  95
Leu Phe Ser Asp Pro Tyr Gln Asn Ile Ser Ile Pro Lys Glu Ala His
            100                 105                 110
Phe Ile Lys Ser Lys Thr Cys Arg Phe Gly Val Asn Thr Cys Lys Tyr
        115                 120                 125
Leu Ser Ser Phe Gly Phe Lys Val Ser Ser Asp Gly Leu Asp Lys Val
    130                 135                 140
Ile Val Gly Ser Pro Phe Thr Leu Asp Val Glu Gly Val Leu Ile Cys
145                 150                 155                 160
Phe Gly Lys Glu Ala Val Asp Leu Ala Val Ala His Asn Ser Glu Phe
                165                 170                 175
Lys Leu Pro Cys Glu Val Arg Gly Ser Thr Phe Asn Val Val Thr Leu
            180                 185                 190
Leu Lys Ser Arg Asp Pro Thr Pro Glu Asp Arg His Trp Phe Tyr Ile
        195                 200                 205
Ala Ala Thr Arg His Arg Glu Lys Leu Ile Ile Met Gln
    210                 215                 220
```

<210> 6
<211> 351
<212> DNA
<213> Rupestris stem pitting associated virus

<400> 6
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atgccttttc agcagcctgc gaattgggca aaaaccataa ctccattgac agttggcttg      60
ggcattgggc ttgtgctgca ttttctgagg aagtcaaatc taccttattc aggggacaac     120
atccatcaat tccctcacgg tgggcgttac agggacggta caaaaagtat aacttactgt     180
ggtccaaagc aatccttccc cagctctggg atattcggcc aatctgagaa ttttgtgccc     240
ttaatgcttg tcataggtct aatcgcattc atacatgtat tgtctgtttg gaattctggt     300
cttggtagga attgtaattg ccatccaaat ccttgctcat gtagacagca g              351
```

<210> 7
<211> 117
<212> PRT
<213> Rupestris stem pitting associated virus

<400> 7
```
Met Pro Phe Gln Gln Pro Ala Asn Trp Ala Lys Thr Ile Thr Pro Leu
 1               5                  10                  15
Thr Val Gly Leu Gly Ile Gly Leu Val Leu His Phe Leu Arg Lys Ser
            20                  25                  30
Asn Leu Pro Tyr Ser Gly Asp Asn Ile His Gln Phe Pro His Gly Gly
        35                  40                  45
Arg Tyr Arg Asp Gly Thr Lys Ser Ile Thr Tyr Cys Gly Pro Lys Gln
    50                  55                  60
Ser Phe Pro Ser Ser Gly Ile Phe Gly Gln Ser Glu Asn Phe Val Pro
65                  70                  75                  80
Leu Met Leu Val Ile Gly Leu Ile Ala Phe Ile His Val Leu Ser Val
```

```
                85                  90                  95
Trp Asn Ser Gly Leu Gly Arg Asn Cys Asn Cys His Pro Asn Pro Cys
            100                 105                 110
Ser Cys Arg Gln Gln
        115
```

<210> 8
<211> 240
<212> DNA
<213> Rupestris stem pitting associated virus

<400> 8
atgtattgtc tgtttggaat tctggtcttg gtaggaattg taattgccat ccaaatcctt 60
gctcatgtag acagcagtag tggcaaccac caaggttgct tcattagggc cactggagag 120
tcaattttga ttgaaaactg cggcccaagt gaggcccttg catccactgt gaaggaggtg 180
ctgggaggtt tgaaggcttt aggggttagc cgtgctgttg aagaaattga ttatcattgt 240

<210> 9
<211> 80
<212> PRT
<213> Rupestris stem pitting associated virus

<400> 9
```
Met Tyr Cys Leu Phe Gly Ile Leu Val Leu Val Gly Ile Val Ile Ala
 1               5                  10                  15
Ile Gln Ile Leu Ala His Val Asp Ser Ser Ser Gly Asn His Gln Gly
            20                  25                  30
Cys Phe Ile Arg Ala Thr Gly Glu Ser Ile Leu Ile Glu Asn Cys Gly
        35                  40                  45
Pro Ser Glu Ala Leu Ala Ser Thr Val Lys Glu Val Leu Gly Gly Leu
    50                  55                  60
Lys Ala Leu Gly Val Ser Arg Ala Val Glu Glu Ile Asp Tyr His Cys
65                  70                  75                  80
```

<210> 10
<211> 777
<212> DNA
<213> Rupestris stem pitting associated virus

<400> 10
atggcaagtc aaattgggaa actccccggt gaatcaaatg aggcttttga agcccggcta 60
aaatcgctgg agttagctag agctcaaaag cagccggaag gttctaatgc accacctact 120
ctcagtggca ttcttgccaa acgcaagagg attatagaga atgcactttc aaagacggtg 180
gacatgaggg aggttttgaa acacgaaacg gtggtgattt ccccaaatgt catggatgaa 240
ggtgcaatag acgagctgat tcgtgcattt ggtgaatctg gcatagctga aagcgtgcaa 300
tttgatgtgg ccatagatat agcacgtcac tgctctgatg ttggtagctc ccagagttca 360
accctgattg gcaagagtcc attttgtgac ctaaacagat cagaaatagc tgggattata 420
agggaggtga ccacattacg tagattttgc atgtactatg caaaaatcgt gtggaacatc 480
catctggaga cggggatacc accagctaac tgggccaaga aaggatttaa tgagaatgaa 540
aagtttgcag cctttgattt tttcttggga gtcacagatg agagtgcgct tgaaccaaag 600
ggtggaatta aaagagctcc aacgaaagct gagatggttg ctaatatcgc ctcttttgag 660

gttcaagtgc tcagacaagc tatggctgaa ggcaagcgga gttccaacct tggagagatt 720
agtggtggaa cggctggtgc actcatcaac aacccctttt caaatgttac acatgaa 777

<210> 11
<211> 259
<212> PRT
<213> Rupestris stem pitting associated virus

<400> 11
Met Ala Ser Gln Ile Gly Lys Leu Pro Gly Glu Ser Asn Glu Ala Phe
1 5 10 15
Glu Ala Arg Leu Lys Ser Leu Glu Leu Ala Arg Ala Gln Lys Gln Pro
20 25 30
Glu Gly Ser Asn Ala Pro Pro Thr Leu Ser Gly Ile Leu Ala Lys Arg
35 40 45
Lys Arg Ile Ile Glu Asn Ala Leu Ser Lys Thr Val Asp Met Arg Glu
50 55 60
Val Leu Lys His Glu Thr Val Val Ile Ser Pro Asn Val Met Asp Glu
65 70 75 80
Gly Ala Ile Asp Glu Leu Ile Arg Ala Phe Gly Glu Ser Gly Ile Ala
85 90 95
Glu Ser Val Gln Phe Asp Val Ala Ile Asp Ile Ala Arg His Cys Ser
100 105 110
Asp Val Gly Ser Ser Gln Ser Ser Thr Leu Ile Gly Lys Ser Pro Phe
115 120 125
Cys Asp Leu Asn Arg Ser Glu Ile Ala Gly Ile Ile Arg Glu Val Thr
130 135 140
Thr Leu Arg Arg Phe Cys Met Tyr Tyr Ala Lys Ile Val Trp Asn Ile
145 150 155 160
His Leu Glu Thr Gly Ile Pro Pro Ala Asn Trp Ala Lys Lys Gly Phe
165 170 175
Asn Glu Asn Glu Lys Phe Ala Ala Phe Asp Phe Phe Leu Gly Val Thr
180 185 190
Asp Glu Ser Ala Leu Glu Pro Lys Gly Gly Ile Lys Arg Ala Pro Thr
195 200 205
Lys Ala Glu Met Val Ala Asn Ile Ala Ser Phe Glu Val Gln Val Leu
210 215 220
Arg Gln Ala Met Ala Glu Gly Lys Arg Ser Ser Asn Leu Gly Glu Ile
225 230 235 240
Ser Gly Gly Thr Ala Gly Ala Leu Ile Asn Asn Pro Phe Ser Asn Val
245 250 255
Thr His Glu

<210> 12
<211> 2680
<212> DNA
<213> Rupestris stem pitting associated virus

<400> 12
ggctgggcaa actttggcct gctttcaaca cgccgtcttg gttcgctttg caccctacat 60

gcgatacatt gaaaagaagc ttgtgcaggc attgaaacca aatttctaca ttcattctgg 120
caaaggtctt gatgagctaa gtgaatgggt tagagccaga ggtttcacag gtgtgtgtac 180
tgagtcagac tatgaagctt ttgatgcatc ccaagatcat ttcatcctgg catttgaact 240
gcaaatcatg agatttttag gactgccaga agatctgatt ttagattatg agttcatcaa 300
aattcatctt gggtcaaagc ttggctcttt tgcaattatg agattcacag gtgaggcaag 360
caccttccta ttcaatacta tggccaacat gctattcact ttcctgaggt atgagttgac 420
aggttctgaa tcaattgcat ttgctggaga tgatatgtgt gctaatcgca ggttaagact 480
caagactgag cacgccggct ttctaaacat gatctgtctc aaagctaagg tgcagtttgt 540
cacaaatccc accttctgtg gatggtgttt gtttaaagag ggaatcttta aaaaacccca 600
gctcatttgg gaaaggatct gcattgctag ggaaatgggt aacttggaca attgcattga 660
caattacgca attgaggtgt cttatgctta cagacttggg gaattgtcca taggcgtgat 720
gactgaggag gaagttgaag cacattctaa ctgcgtgcgt ttcctggttc gcaataagca 780
caagatgagg tgctcaattt ctggtttgtt tgaagtaatt gtttaggcct taagtgtttg 840
gcatggtgtg agtattatga ataacttagt caaagctttg tctgcttttg aatttgttgg 900
tgtgttttgt gtacttaaat ttccagttgt tgttcacagt gttccaggta gcggtaaaag 960
tagcctaata agggagctca tttctgaaga cgaggctttt gtggccttta cagcaggtgt 1020
gccagacagt ccaaatctga cagggaggta catcaagccc tacgctccag ggtgtgcagt 1080
gcaagggaaa ataaacatac ttgatgagta cttgtctgtc tctgatactt ctggctttga 1140
tgtgctgttc tcagaccctt accagaatgt cagcattcca agggaggcac acttcataaa 1200
aaccaaaacc tgtaggtttg gtaccaacac ctgcaagtac cttcaatctt ttggctttaa 1260
tgtttgtagt gatggggtgg ataaagttgt tgtagggtcg ccatttgaac tggaggttga 1320
gggggttctc atttgctttg gaaaggaggc tgtagatcta gcagttgcac acaattctga 1380
cttcaagttg ccctgcgagg tgcggggttc aacatttgac gttgtaacgt tattgaagtc 1440
cagggatcca acttcagaag ataagcattg gttctacgtt gcagccacaa ggcatcgaag 1500
taaactgata ataatgcagt aaaatgcctt ttcagcaacc tgccaactgg gctaagacca 1560
taactccatt aactattggt ttgggcattg ggttggttct gcacttctta aggaaatcaa 1620
atctgccata ttcaggagac aatattcacc agttcccaca cggagggcat tacagggacg 1680
gcacgaagag tataacctat tgtggcccta ggcagtcatt cccaagctca ggaatattcg 1740
gtcagtctga aaatttcgta cctctaatat tggtcgtgac tctggtcgct tttatacatg 1800
cgttatctct ttggaattct ggtcctagta ggagttgcaa ttgccatcca aatccttgca 1860
catgtagaca gcagtagtgg caaccatcaa ggctgtttca taagagccac cggggagtca 1920
atagtaattg agaattgtgg gccgagcgag gccctagctg ctacagtcaa agaggtgttg 1980
ggcggtctaa aggctttagg ggttagccaa aaggttgatg aaattaatta cagttgttga 2040
gacagttgaa tggcaagtca agttggaaaa ttgcctggcg aatcaaatga agcatatgag 2100
gctagactca aggctttaga gttagcaagg gcccaaaaag ctccagaagt ctccaaccaa 2160
cctcccacac ttggaggcat tctagccaaa aggaaaagag tgattgagaa tgcactctca 2220
aagacagtgg atatgcgtga agtcttaagg catgaatctg ttgtactctc cccgaatgta 2280
atggacgagg gagcaataga cgagctgatt cgtgcctttg gggagtcggg catagctgaa 2340
aatgtgcagt ttgatgttgc aatagacatt gctcgccact gttctgatgt ggggagctct 2400
cagaggtcaa cccttattgg taaaagcccc ttctgtgagt taaataggtc tgaaattgcc 2460
ggaataataa gggaggtgac cacgctgcgc agattttgca tgtactacgc aaagattgtg 2520
tggaacatcc atttggagac gggaatacca ccagctaatt gggccaagaa aggatttaat 2580
gagaatgaaa agtttgcagc ctttgacttc ttccttggag tcacagatga aagcgcgctt 2640
gagcctaagg gtggagtcaa gagagctcca acaaaagcag 2680

<210> 13
<211> 767
<212> DNA
<213> Rupestris stem pitting associated virus

<400> 13

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atgcgataca ttgaaaagaa gcttgtgcag gcattgaaac caaatttcta cattcattct      60
ggcaaaggtc ttgatgagct aagtgaatgg gttagagcca gaggtttcac aggtgtgtgt     120
actgagtcag actatgaagc ttttgatgca tcccaagatc atttcatcct ggcatttgaa     180
ctgcaaatca tgagattttt aggactgcca gaagatctga ttttagatta tgagttcatc     240
aaaattcatc ttgggtcaaa gcttggctct tttgcaatta tgagattcac aggtgaggca     300
agcaccttcc tattcaatac tatggccaac atgctattca ctttcctgag gtatgagttg     360
acaggttctg aatcaattgc atttgctgga gatgatatgt gtgctaatcg caggttaaga     420
ctcaagactg agcacgccgg ctttctaaac atgatctgtc tcaaagctaa ggtgcagttt     480
gtcacaaatc ccaccttctg tggatggtgt ttgtttaaag agggaatctt taaaaaaccc     540
cagctcattt gggaaaggat ctgcattgct agggaaatgg gtaacttgga caattgcatt     600
gacaattacg caattgaggt gtcttatgct tacagacttg gggaattgtc cataggcgtg     660
atgactgagg aggaagttga agcacattct aactgcgtgc gtttcctggt tcgcaataag     720
cacaagatga ggtgctcaat ttctggtttg tttgaagtaa ttgttta                   767
```

<210> 14
<211> 255
<212> PRT
<213> Rupestris stem pitting associated virus

<400> 14

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Met Arg Tyr Ile Glu Lys Lys Leu Val Gln Ala Leu Lys Pro Asn Phe
 1               5                  10                  15
Tyr Ile His Ser Gly Lys Gly Leu Asp Glu Leu Ser Glu Trp Val Arg
            20                  25                  30
Ala Arg Gly Phe Thr Gly Val Cys Thr Glu Ser Asp Tyr Glu Ala Phe
        35                  40                  45
Asp Ala Ser Gln Asp His Phe Ile Leu Ala Phe Glu Leu Gln Ile Met
    50                  55                  60
Arg Phe Leu Gly Leu Pro Glu Asp Leu Ile Leu Asp Tyr Glu Phe Ile
65                  70                  75                  80
Lys Ile His Leu Gly Ser Lys Leu Gly Ser Phe Ala Ile Met Arg Phe
                85                  90                  95
Thr Gly Glu Ala Ser Thr Phe Leu Phe Asn Thr Met Ala Asn Met Leu
            100                 105                 110
Phe Thr Phe Leu Arg Tyr Glu Leu Thr Gly Ser Glu Ser Ile Ala Phe
        115                 120                 125
Ala Gly Asp Asp Met Cys Ala Asn Arg Arg Leu Arg Leu Lys Thr Glu
    130                 135                 140
His Ala Gly Phe Leu Asn Met Ile Cys Leu Lys Ala Lys Val Gln Phe
145                 150                 155                 160
Val Thr Asn Pro Thr Phe Cys Gly Trp Cys Leu Phe Lys Glu Gly Ile
                165                 170                 175
Phe Lys Lys Pro Gln Leu Ile Trp Glu Arg Ile Cys Ile Ala Arg Glu
            180                 185                 190
Met Gly Asn Leu Asp Asn Cys Ile Asp Asn Tyr Ala Ile Glu Val Ser
        195                 200                 205
Tyr Ala Tyr Arg Leu Gly Glu Leu Ser Ile Gly Val Met Thr Glu Glu
    210                 215                 220
Glu Val Glu Ala His Ser Asn Cys Val Arg Phe Leu Val Arg Asn Lys
225                 230                 235                 240
His Lys Met Arg Cys Ser Ile Ser Gly Leu Phe Glu Val Ile Val
```

245 250 255

<210> 15
<211> 666
<212> DNA
<213> Rupestris stem pitting associated virus

<400> 15
atgaataact tagtcaaagc tttgtctgct tttgaatttg ttggtgtgtt ttgtgtactt 60
aaatttccag ttgttgttca cagtgttcca ggtagcggta aaagtagcct aataagggag 120
ctcatttctg aagacgaggc ttttgtggcc tttacagcag gtgtgccaga cagtccaaat 180
ctgacaggga ggtacatcaa gccctacgct ccagggtgtg cagtgcaagg gaaaataaac 240
atacttgatg agtacttgtc tgtctctgat acttctggct ttgatgtgct gttctcagac 300
ccttaccaga atgtcagcat tccaagggag gcacacttca taaaaaccaa aacctgtagg 360
tttggtacca acacctgcaa gtaccttcaa tcttttggct ttaatgtttg tagtgatggg 420
gtggataaag ttgttgtagg gtcgccattt gaactggagg ttgaggggggt tctcatttgc 480
tttggaaagg aggctgtaga tctagcagtt gcacacaatt ctgacttcaa gttgccctgc 540
gaggtgcggg gttcaacatt tgacgttgta acgttattga agtccaggga tccaacttca 600
gaagataagc attggttcta cgttgcagcc acaaggcatc gaagtaaact gataataatg 660
cagtaa 666

<210> 16
<211> 221
<212> PRT
<213> Rupestris stem pitting associated virus

<400> 16
Met Asn Asn Leu Val Lys Ala Leu Ser Ala Phe Glu Phe Val Gly Val
1 5 10 15
Phe Cys Val Leu Lys Phe Pro Val Val Val His Ser Val Pro Gly Ser
20 25 30
Gly Lys Ser Ser Leu Ile Arg Glu Leu Ile Ser Glu Asp Glu Ala Phe
35 40 45
Val Ala Phe Thr Ala Gly Val Pro Asp Ser Pro Asn Leu Thr Gly Arg
50 55 60
Tyr Ile Lys Pro Tyr Ala Pro Gly Cys Ala Val Gln Gly Lys Ile Asn
65 70 75 80
Ile Leu Asp Glu Tyr Leu Ser Val Ser Asp Thr Ser Gly Phe Asp Val
85 90 95
Leu Phe Ser Asp Pro Tyr Gln Asn Val Ser Ile Pro Arg Glu Ala His
100 105 110
Phe Ile Lys Thr Lys Thr Cys Arg Phe Gly Thr Asn Thr Cys Lys Tyr
115 120 125
Leu Gln Ser Phe Gly Phe Asn Val Cys Ser Asp Gly Val Asp Lys Val
130 135 140
Val Val Gly Ser Pro Phe Glu Leu Glu Val Glu Gly Val Leu Ile Cys
145 150 155 160
Phe Gly Lys Glu Ala Val Asp Leu Ala Val Ala His Asn Ser Asp Phe
165 170 175
Lys Leu Pro Cys Glu Val Arg Gly Ser Thr Phe Asp Val Val Thr Leu
180 185 190

```
Leu Lys Ser Arg Asp Pro Thr Ser Glu Asp Lys His Trp Phe Tyr Val
        195                 200                 205
Ala Ala Thr Arg His Arg Ser Lys Leu Ile Ile Met Gln
    210                 215                 220
```

<210> 17
<211> 354
<212> DNA
<213> Rupestris stem pitting associated virus

<400> 17
atgccttttc agcaacctgc caactgggct aagaccataa ctccattaac tattggtttg 60
ggcattgggt tggttctgca cttcttaagg aaatcaaatc tgccatattc aggagacaat 120
attcaccagt tcccacacgg agggcattac agggacggca cgaagagtat aacctattgt 180
ggccctaggc agtcattccc aagctcagga atattcggtc agtctgaaaa tttcgtacct 240
ctaatattgg tcgtgactct ggtcgctttt atacatgcgt tatctctttg gaattctggt 300
cctagtagga gttgcaattg ccatccaaat ccttgcacat gtagacagca gtag 354

<210> 18
<211> 117
<212> PRT
<213> Rupestris stem pitting associated virus

<400> 18
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Met Pro Phe Gln Gln Pro Ala Asn Trp Ala Lys Thr Ile Thr Pro Leu
 1               5                  10                  15
Thr Ile Gly Leu Gly Ile Gly Leu Val Leu His Phe Leu Arg Lys Ser
            20                  25                  30
Asn Leu Pro Tyr Ser Gly Asp Asn Ile His Gln Phe Pro His Gly Gly
        35                  40                  45
His Tyr Arg Asp Gly Thr Lys Ser Ile Thr Tyr Cys Gly Pro Arg Gln
    50                  55                  60
Ser Phe Pro Ser Ser Gly Ile Phe Gly Gln Ser Glu Asn Phe Val Pro
65                  70                  75                  80
Leu Ile Leu Val Val Thr Leu Val Ala Phe Ile His Ala Leu Ser Leu
                85                  90                  95
Trp Asn Ser Gly Pro Ser Arg Ser Cys Asn Cys His Pro Asn Pro Cys
            100                 105                 110
Thr Cys Arg Gln Gln
        115
```

<210> 19
<211> 243
<212> DNA
<213> Rupestris stem pitting associated virus

<400> 19
atgcgttatc tctttggaat tctggtccta gtaggagttg caattgccat ccaaatcctt 60
gcacatgtag acagcagtag tggcaaccat caaggctgtt tcataagagc caccggggag 120
tcaatagtaa ttgagaattg tgggccgagc gaggccctag ctgctacagt caaagaggtg 180
ttgggcggtc taaaggcttt aggggttagc caaaaggttg atgaaattaa ttacagttgt 240

tga 243

<210> 20
<211> 80
<212> PRT
<213> Rupestris stem pitting associated virus

<400> 20
Met Arg Tyr Leu Phe Gly Ile Leu Val Leu Val Gly Val Ala Ile Ala
1 5 10 15
Ile Gln Ile Leu Ala His Val Asp Ser Ser Ser Gly Asn His Gln Gly
20 25 30
Cys Phe Ile Arg Ala Thr Gly Glu Ser Ile Val Ile Glu Asn Cys Gly
35 40 45
Pro Ser Glu Ala Leu Ala Ala Thr Val Lys Glu Val Leu Gly Gly Leu
50 55 60
Lys Ala Leu Gly Val Ser Gln Lys Val Asp Glu Ile Asn Tyr Ser Cys
65 70 75 80

<210> 21
<211> 631
<212> DNA
<213> Rupestris stem pitting associated virus

<400> 21
atggcaagtc aagttggaaa attgcctggc gaatcaaatg aagcatatga ggctagactc 60
aaggctttag agttagcaag ggcccaaaaa gctccagaag tctccaacca acctcccaca 120
cttggaggca ttctagccaa aaggaaaaga gtgattgaga atgcactctc aaagacagtg 180
gatatgcgtg aagtcttaag gcatgaatct gttgtactct ccccgaatgt aatggacgag 240
ggagcaatag acgagctgat tcgtgccttt ggggagtcgg gcatagctga aaatgtgcag 300
tttgatgttg caatagacat tgctcgccac tgttctgatg tggggagctc tcagaggtca 360
acccttattg gtaaaagccc cttctgtgag ttaaataggt ctgaaattgc cggaataata 420
agggaggtga ccacgctgcg cagattttgc atgtactacg caaagattgt gtggaacatc 480
catttggaga cgggaatacc accagctaat tgggccaaga aaggatttaa tgagaatgaa 540
aagtttgcag cctttgactt cttccttgga gtcacagatg aaagcgcgct tgagcctaag 600
ggtggagtca agagagctcc aacaaaagca g 631

<210> 22
<211> 210
<212> PRT
<213> Rupestris stem pitting associated virus

<400> 22
Met Ala Ser Gln Val Gly Lys Leu Pro Gly Glu Ser Asn Glu Ala Tyr
1 5 10 15
Glu Ala Arg Leu Lys Ala Leu Glu Leu Ala Arg Ala Gln Lys Ala Pro
20 25 30
Glu Val Ser Asn Gln Pro Pro Thr Leu Gly Gly Ile Leu Ala Lys Arg
35 40 45
Lys Arg Val Ile Glu Asn Ala Leu Ser Lys Thr Val Asp Met Arg Glu
50 55 60

```
Val Leu Arg His Glu Ser Val Val Leu Ser Pro Asn Val Met Asp Glu
65                  70                  75                  80
Gly Ala Ile Asp Glu Leu Ile Arg Ala Phe Gly Glu Ser Gly Ile Ala
                85                  90                  95
Glu Asn Val Gln Phe Asp Val Ala Ile Asp Ile Ala Arg His Cys Ser
            100                 105                 110
Asp Val Gly Ser Ser Gln Arg Ser Thr Leu Ile Gly Lys Ser Pro Phe
        115                 120                 125
Cys Glu Leu Asn Arg Ser Glu Ile Ala Gly Ile Ile Arg Glu Val Thr
    130                 135                 140
Thr Leu Arg Arg Phe Cys Met Tyr Tyr Ala Lys Ile Val Trp Asn Ile
145                 150                 155                 160
His Leu Glu Thr Gly Ile Pro Pro Ala Asn Trp Ala Lys Lys Gly Phe
                165                 170                 175
Asn Glu Asn Glu Lys Phe Ala Ala Phe Asp Phe Phe Leu Gly Val Thr
            180                 185                 190
Asp Glu Ser Ala Leu Glu Pro Lys Gly Gly Val Lys Arg Ala Pro Thr
        195                 200                 205
Lys Ala
    210
```

<210> 23
<211> 2009
<212> DNA
<213> Rupestris stem pitting associated virus

<400> 23

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gaagctagca catttctgtt caacactatg gctaacatgt tgttcacttt tctgagatat      60
gaactgacgg gttcagagtc aatagcattt gcaggggatg atatgtgtgc taatagaagg     120
ttgcggctta aaacggagca tgagggtttt ctgaacatga tctgccttaa ggccaaggtt     180
cagtttgttt ccaaccccac attctgtgga tggtgcttat ttaaggaggg aatcttcaag     240
aaacctcaac taatttggga gcgaatatgc atagccagag agatgggcaa tctggagaac     300
tgtattgaca attatgcgat agaagtgtcc tatgcatata gattgggtga gctatcaatt     360
gaaatgatga cagaagaaga agtggaggca cactacaatt gtgtgaggtt cctggttagg     420
aacaagcata agatgaggtg ctcaatttca ggcctgtttg aagtggttga ttaggcctta     480
agtatttggc gttgttcgag ttattatgaa taatttagtt aaagcattat cagccttcga     540
gtttataggt gttttcaatg tgctcaaatt tccagttgtt atacatagtg tgcctggtag     600
tggtaagagt agcttaataa gggaattaat ctcagaggac gagagtttcg tggctttcac     660
agcaggtgtt ccagacagtc ctaacctcac agggaggtac atcaagcctt actcaccagg     720
atgcgcagtg caaggaaaag tgaatatact tgatgagtac ttgtccgttc aagacatttc     780
gggttttgat gtactgtttt cagacccgta ccagaatatc agtattcccc aagaggcgca     840
tttcattaag tccaagactt gtaggtttgg tgtgaacact tgcaaatacc tttcctcttt     900
cggtttcgaa gttagcagcg acgggctgga cgacgtcatt gtgggatcgc ccttcactct     960
agatgttgaa ggggtgctga tatgttttgg caaggaggcg gtagatctcg ctgttgcgca    1020
caactctgaa ttcaagttgc cgtgtgaggt tcgaggttca accttcaatg tggtaaccct    1080
tttgaaatca agagacccaa ccccagagga caggcactgg ttttacatcg ctgccacaag    1140
acataggaag aaattggtca ttatgcagta aaatgccttt tcagcagcct gctaattggg    1200
caaaaaccat aactccattg actattggct taggaattgg acttgtgctg cattttctga    1260
gaaagtcaaa tctaccatat tcaggagaca acatccatca atttcctcac ggggggcgtt    1320
accgggacgg cacaaaaagt ataacttact gtggccctaa gcagtccttc cccagttcag    1380
gaatatttgg tcagtctgag aattttgtgc ccttaatgct tgtcataggt ctaattgcat    1440
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tcatacatgt attgtctgtt tggaattctg gtcttggtag gaattgcaat tgccatccaa 1500
atccttgctc atgtagacaa cagtagtggc agtcaccaag gttgctttat cagggccact 1560
ggagagtcta ttttgattga aaattgtggc ccaagcgagg cccttgcatc aacagtgagg 1620
gaggtgttgg ggggtttgaa ggctttagga attagccata ctactgaaga aattgattat 1680
cgttgttaaa ttggttaaat ggcgagtcaa gttggtaagc tccccggaga atcaaatgag 1740
gcatttgaag cccggctgaa atcactggag ttggctagag ctcaaaagca gccagaaggt 1800
tcaaacacac cgcctactct cagtggtgtg cttgccaaac gtaagagggt tattgagaat 1860
gcactctcaa agacagtgga catgagggag gtgttgaaac acgaaacggt tgtaatttcc 1920
ccaaatgtca tggatgaggg tgcaatagat gaactgattc gtgcattcgg agaatcaggc 1980
atagctgaga gcgcacaatt tgatgtggc 2009

<210> 24
<211> 447
<212> DNA
<213> Rupestris stem pitting associated virus

<400> 24
gaagctagca catttctgtt caacactatg gctaacatgt tgttcacttt tctgagatat 60
gaactgacgg gttcagagtc aatagcattt gcaggggatg atatgtgtgc taatagaagg 120
ttgcggctta aaacggagca tgagggtttt ctgaacatga tctgccttaa ggccaaggtt 180
cagtttgttt ccaaccccac attctgtgga tggtgcttat ttaaggaggg aatcttcaag 240
aaacctcaac taatttggga gcgaatatgc atagccagag agatgggcaa tctggagaac 300
tgtattgaca attatgcgat agaagtgtcc tatgcatata gattgggtga gctatcaatt 360
gaaatgatga cagaagaaga agtggaggca cactacaatt gtgtgaggtt cctggttagg 420
aacaagcata agatgaggtg ctcaatt 447

<210> 25
<211> 149
<212> PRT
<213> Rupestris stem pitting associated virus

<400> 25
Glu Ala Ser Thr Phe Leu Phe Asn Thr Met Ala Asn Met Leu Phe Thr
1 5 10 15
Phe Leu Arg Tyr Glu Leu Thr Gly Ser Glu Ser Ile Ala Phe Ala Gly
20 25 30
Asp Asp Met Cys Ala Asn Arg Arg Leu Arg Leu Lys Thr Glu His Glu
35 40 45
Gly Phe Leu Asn Met Ile Cys Leu Lys Ala Lys Val Gln Phe Val Ser
50 55 60
Asn Pro Thr Phe Cys Gly Trp Cys Leu Phe Lys Glu Gly Ile Phe Lys
65 70 75 80
Lys Pro Gln Leu Ile Trp Glu Arg Ile Cys Ile Ala Arg Glu Met Gly
85 90 95
Asn Leu Glu Asn Cys Ile Asp Asn Tyr Ala Ile Glu Val Ser Tyr Ala
100 105 110
Tyr Arg Leu Gly Glu Leu Ser Ile Glu Met Met Thr Glu Glu Glu Val
115 120 125
Glu Ala His Tyr Asn Cys Val Arg Phe Leu Val Arg Asn Lys His Lys
130 135 140
Met Arg Cys Ser Ile

145

<210> 26
<211> 666
<212> DNA
<213> Rupestris stem pitting associated virus

<400> 26
atgaataatt tagttaaagc attatcagcc ttcgagttta taggtgtttt caatgtgctc 60
aaatttccag ttgttataca tagtgtgcct ggtagtggta agagtagctt aataagggaa 120
ttaatctcag aggacgagag tttcgtggct ttcacagcag gtgttccaga cagtcctaac 180
ctcacaggga ggtacatcaa gccttactca ccaggatgcg cagtgcaagg aaaagtgaat 240
atacttgatg agtacttgtc cgttcaagac atttcgggtt ttgatgtact gttttcagac 300
ccgtaccaga atatcagtat tccccaagag gcgcatttca ttaagtccaa gacttgtagg 360
tttggtgtga acacttgcaa atacctttcc tctttcggtt tcgaagttag cagcgacggg 420
ctggacgacg tcattgtggg atcgcccttc actctagatg ttgaaggggt gctgatatgt 480
tttggcaagg aggcggtaga tctcgctgtt gcgcacaact ctgaattcaa gttgccgtgt 540
gaggttcgag gttcaacctt caatgtggta acccttttga aatcaagaga cccaacccca 600
gaggacaggc actggtttta catcgctgcc acaagacata ggaagaaatt ggtcattatg 660
cagtaa 666

<210> 27
<211> 221
<212> PRT
<213> Rupestris stem pitting associated virus

<400> 27
Met Asn Asn Leu Val Lys Ala Leu Ser Ala Phe Glu Phe Ile Gly Val
1 5 10 15
Phe Asn Val Leu Lys Phe Pro Val Val Ile His Ser Val Pro Gly Ser
20 25 30
Gly Lys Ser Ser Leu Ile Arg Glu Leu Ile Ser Glu Asp Glu Ser Phe
35 40 45
Val Ala Phe Thr Ala Gly Val Pro Asp Ser Pro Asn Leu Thr Gly Arg
50 55 60
Tyr Ile Lys Pro Tyr Ser Pro Gly Cys Ala Val Gln Gly Lys Val Asn
65 70 75 80
Ile Leu Asp Glu Tyr Leu Ser Val Gln Asp Ile Ser Gly Phe Asp Val
85 90 95
Leu Phe Ser Asp Pro Tyr Gln Asn Ile Ser Ile Pro Gln Glu Ala His
100 105 110
Phe Ile Lys Ser Lys Thr Cys Arg Phe Gly Val Asn Thr Cys Lys Tyr
115 120 125
Leu Ser Ser Phe Gly Phe Glu Val Ser Ser Asp Gly Leu Asp Asp Val
130 135 140
Ile Val Gly Ser Pro Phe Thr Leu Asp Val Glu Gly Val Leu Ile Cys
145 150 155 160
Phe Gly Lys Glu Ala Val Asp Leu Ala Val Ala His Asn Ser Glu Phe
165 170 175
Lys Leu Pro Cys Glu Val Arg Gly Ser Thr Phe Asn Val Val Thr Leu
180 185 190

```
Leu Lys Ser Arg Asp Pro Thr Pro Glu Asp Arg His Trp Phe Tyr Ile
        195                 200                 205
Ala Ala Thr Arg His Arg Lys Lys Leu Val Ile Met Gln
    210                 215                 220
```

<210> 28
<211> 354
<212> DNA
<213> Rupestris stem pitting associated virus

<400> 28
atgccttttc agcagcctgc taattgggca aaaaccataa ctccattgac tattggctta 60
ggaattggac ttgtgctgca ttttctgaga aagtcaaatc taccatattc aggagacaac 120
atccatcaat ttcctcacgg ggggcgttac cgggacggca caaaaagtat aacttactgt 180
ggccctaagc agtccttccc cagttcagga atatttggtc agtctgagaa ttttgtgccc 240
ttaatgcttg tcataggtct aattgcattc atacatgtat tgtctgtttg gaattctggt 300
cttggtagga attgcaattg ccatccaaat ccttgctcat gtagacaaca gtag 354

<210> 29
<211> 116
<212> PRT
<213> Rupestris stem pitting associated virus

<400> 29
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Met Pro Phe Gln Gln Pro Ala Asn Trp Ala Lys Thr Ile Thr Pro Leu
 1               5                  10                  15
Thr Ile Gly Leu Gly Ile Gly Leu Val Leu His Phe Leu Arg Lys Ser
            20                  25                  30
Asn Leu Pro Tyr Ser Gly Asp Asn Ile His Gln Phe Pro His Gly Gly
        35                  40                  45
Arg Tyr Arg Asp Gly Thr Lys Ile Thr Tyr Cys Gly Pro Lys Gln Ser
    50                  55                  60
Phe Pro Ser Ser Gly Ile Phe Gly Gln Ser Glu Asn Phe Val Pro Leu
65                  70                  75                  80
Met Leu Val Ile Gly Leu Ile Ala Phe Ile His Val Leu Ser Val Trp
                85                  90                  95
Asn Ser Gly Leu Gly Arg Asn Cys Asn Cys His Pro Asn Pro Cys Ser
            100                 105                 110
Cys Arg Gln Gln
        115
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<210> 30
<211> 243
<212> DNA
<213> Rupestris stem pitting associated virus

<400> 30
atgtattgtc tgtttggaat tctggtcttg gtaggaattg caattgccat ccaaatcctt 60
gctcatgtag acaacagtag tggcagtcac caaggttgct ttatcagggc cactggagag 120
tctatttga ttgaaaattg tggcccaagc gaggcccttg catcaacagt gagggaggtg 180
ttgggggggtt tgaaggcttt aggaattagc catactactg aagaaattga ttatcgttgt 240

taa 243

<210> 31
<211> 80
<212> PRT
<213> Rupestris stem pitting associated virus

<400> 31
Met Tyr Cys Leu Phe Gly Ile Leu Val Leu Val Gly Ile Ala Ile Ala
1 5 10 15
Ile Gln Ile Leu Ala His Val Asp Asn Ser Ser Gly Ser His Gln Gly
20 25 30
Cys Phe Ile Arg Ala Thr Gly Glu Ser Ile Leu Ile Glu Asn Cys Gly
35 40 45
Pro Ser Glu Ala Leu Ala Ser Thr Val Arg Glu Val Leu Gly Gly Leu
50 55 60
Lys Ala Leu Gly Ile Ser His Thr Thr Glu Glu Ile Asp Tyr Arg Cys
65 70 75 80

<210> 32
<211> 311
<212> DNA
<213> Rupestris stem pitting associated virus

<400> 32
atggcgagtc aagttggtaa gctccccgga gaatcaaatg aggcatttga agcccggctg 60
aaatcactgg agttggctag agctcaaaag cagccagaag gttcaaacac accgcctact 120
ctcagtggtg tgcttgccaa acgtaagagg gttattgaga atgcactctc aaagacagtg 180
gacatgaggg aggtgttgaa acacgaaacg gttgtaattt ccccaaatgt catggatgag 240
ggtgcaatag atgaactgat tcgtgcattc ggagaatcag gcatagctga gagcgcacaa 300
tttgatgtgg c 311

<210> 33
<211> 103
<212> PRT
<213> Rupestris stem pitting associated virus

<400> 33
Met Ala Ser Gln Val Gly Lys Leu Pro Gly Glu Ser Asn Glu Ala Phe
1 5 10 15
Glu Ala Arg Leu Lys Ser Leu Glu Leu Ala Arg Ala Gln Lys Gln Pro
20 25 30
Glu Gly Ser Asn Thr Pro Pro Thr Leu Ser Gly Val Leu Ala Lys Arg
35 40 45
Lys Arg Val Ile Glu Asn Ala Leu Ser Lys Thr Val Asp Met Arg Glu
50 55 60
Val Leu Lys His Glu Thr Val Val Ile Ser Pro Asn Val Met Asp Glu
65 70 75 80
Gly Ala Ile Asp Glu Leu Ile Arg Ala Phe Gly Glu Ser Gly Ile Ala
85 90 95
Glu Ser Ala Gln Phe Asp Val

<210> 34
<211> 1206
<212> DNA
<213> Rupestris stem pitting associated virus

<400> 34
gcaggattga aggctggcca ctgtgtgatt tttgatgagg tccagttgtt tcctcctgga 60
tacatcgatc tatgcttgct tattatacgt agtgatgctt tcatttcact tgccggtgat 120
ccatgtcaaa gcacatatga ttcgcaaaag gatcgggcaa ttttgggcgc tgagcagagt 180
gacatactta gaatgcttga gggcaaaacg tataggtata acatagaaag caggaggttt 240
gtgaacccaa tgttcgaatc aagactgcca tgtcacttca aaaagggttc gatgactgcc 300
gctttcgctg attatgcaat cttccataat atgcatgact ttctcctggc gaggtcaaaa 360
ggtcctttgg atgccgtttt ggtttccagt tttgaggaga aaaagatagt ccagtcctac 420
tttggaatga aacagctcac actcacattt ggtgaatcaa ctgggttgaa tttcaaaaat 480
gggggaattc tcatatcaca tgattccttt cacacagatg atcggccggt ggcttactgc 540
tttatctcgc ttcagccaca atttggattt ggtgaacatt acaggtctga gggtggaaag 600
tttcctctcg cactttgctg gcaaacccct ctaccatttt ttaacagcca aaagtgggga 660
gaatgtcata cgagatttgc tcccaggtga gcctaacttc ttcagtggct ttaacgttag 720
cattggaaag aatgaaggtg ttagggagga gaagttatgt ggtgacccat ggttaaaagt 780
catgcttttc ctgggtcaag atgaggattg tgaagttgaa gagatggagt cagagtgctc 840
aaatgaagaa tggtttaaaa cccacattcc cctgagtaat ctggagtcaa ccagggctag 900
gtgggtgggt aaaatggctt tgaaagagta tcgggaggtg cgttgtggtt atgaaatgac 960
tcaacaattc tttgatgagc ataggggtgg aactggtgag caactgagca atgcatgtga 1020
gaggtttgaa agcatttacc caaggcataa aggaaatgat tcaataacct tccttatggc 1080
tgtccgaaag cgtctcaaat tttcgaagcc ccaggttgaa gctgccaaac tgaggcgggc 1140
caaaccatat gggaaattct tattagactt tcctatccaa aatcccattg aaagccagtc 1200
ataatt 1206

<210> 35
<211> 1284
<212> DNA
<213> Rupestris stem pitting associated virus

<400> 35
attaacccaa atggtaagat ttccgccttg tttgatataa ccaatgagca cataaggcat 60
gttgagaaga tcggcaatgg ccctcagagc ataaaagtag atgagttgag gaaggttaag 120
cgatccgccc ttgatcttct ttcaatgaat gggtccaaaa taacctattt tccaaacttt 180
gagcgggctg aaaagttgca agggtgcttg ctaggggcc taactggtgt cataagtgat 240
gaaaagttca gtgatgcaaa accctggctt tctggtatat caactgcgga tataaagcca 300
agagagctaa ctgtcgtgct tggcactttt ggggctggaa agagtttctt gtataagagt 360
ttcatgaaga gatctgaggg aaaatttgta acttttgttt cccctagacg agccttggca 420
aattcaatca aaaatgatct tgaaatggat gatggctgca aagttgccaa agcaggcaaa 480
tcaaagaagg aagggtggga tgtagtgacc tttgaagttt tccttagaaa agtttctggt 540
ttgaaagctg gtcattgtgt gatttttgat gaggttcagt tgtttccccc tggatacatc 600
gatctgtgtt tacttgtcat acgaagtgat gctttcattt cacttgctgg tgatccatgc 660
cagagcacat atgattcaca gaaggatcga gcaattttgg gagctgagca gagtgacata 720
ctcagactgc ttgaaggaaa gacatatagg tacaacatag aaagcagacg ttttgtgaac 780
ccaatgtttg aatctagact accatgtcac ttcaaaaagg gttcaatgac tgcagccttt 840
gctgattatg caatcttcca caatatgcat gacttcctcc tggcgaggtc aaaaggcccc 900

ttggatgctg ttctagtttc cagttttgag gagaagaaaa tagtccaatc ctactttggg 960
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attctcatat cacatgactc ctttcatact gacgatcgac ggtggcttac tgctttatct 1080
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tcatacgaga cctgcttcag gtgagcctaa cttcttttag gggttcaatg tcagcattgg 1260
aaaaaaatgg aaggggttag agaa 1284

<210> 36
<211> 1402
<212> DNA
<213> Rupestris stem pitting associated virus

<400> 36
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agtaggactg gactattttc ttctcctcaa aactagaaac cagaatggca tccaaaggac 120
cttttgacct tgccaggagg aaatcatgca tattgtggaa aatggcataa tcagcaaagg 180
cagcagtcat tgtacccttt ttgaagtgac atggcagtcg agattcaaac attgggttca 240
caaatcttct gctttctatg ttgtacctat acgtcttgcc ttcaagtatt ttgagtatgt 300
cactctgctc agcgcccaaa atcgcccgat ctttttgtga gtcatatgtg ctctgacatg 360
ggtcaccagc aagtgaaatg aaagcatcac tacgtataat aagcaaacat agatcgatgt 420
atccaggggg aaacaactgg acctcatcga aaattacaca gtgaccagct tttagacctg 480
caacttttct aaggaagact tcaaaagtca caacatccca tccttccttc tttgacctgc 540
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gagcccgtct gggggaaaca aaagttacga atttaccctc agatcttttc ataaagctct 660
tgtacaaaaa gctttttccg gctccaaatg tgccaagcac aacagttagc tccctcggct 720
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tgtgtcaaat acaaataatg caatctctca tctccgataa catttccccc atttttaaa 1380
aatggtgggg tgaaaattgg aa 1402

<210> 37
<211> 1236
<212> DNA
<213> Rupestris stem pitting associated virus

<400> 37
gtggtttttg caacaacagg cccaggtcta tctaaggttt tggaaatgcc tcgaagcaag 60
aagcaatcta ttctggttct tgagggagcc ctatccatag aaacggacta tggcccaaaa 120
gttctgggat cttttgaagt tttcaaaggg gatttcaaca ttaaaaaaat ggaagaaagt 180
tccatctttg taataacata caaggcccca gttagatcta ctggcaagtt gagggtccac 240
caatcagaat gctcattttc tggatccaag gaggtattgc tgggttgtca gattgaggca 300
tgtgctgatt atgatattga tgatttcaat actttctttg tacctggtga tggtaattgc 360

ttttggcatt cagttggttt cttactcagt actgacggac ttgctttgaa ggccggcatt 420
cgttctttcg tggagagtga acgcctggtg agtccagatc tttcagcccc aaccatttct 480
aaacaactgg gggaaaatgc ttatgccgag aatgagatga ttgcattatt ttgtattcga 540
caccatgtga ggctgatagt gattacgcca gagtatgaag tcagttggaa atttggggaa 600
ggtgaatggc ccctgtgcgg aattctttgc cttaaatcaa atcacttcca accatgtgcc 660
ccattgaatg gttgcatgat tacagctatt gcttcagcac ttggtaggcg tgaagttgat 720
gtgcttaatt atctgtgcag gcctagcact aaccacattt ttgaggagct ttgccaaggg 780
ggaggcctca acatgatgta cttagctgaa gcctttgagg cttttgacat ttgcgctaag 840
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gacataacta atgagcacat aaggcatgtt gaaaagatag gtaatggccc tcagagcatt 960
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gtatatcaac tactgacatt aagccgaggg agctaactgt tgtgctttgg cacatttgga 1200
gcccggaaaa agccttttgt accaagagct ttattg 1236

<210> 38
<211> 1296
<212> DNA
<213> Rupestris stem pitting associated virus

<400> 38
gtctaactgg cgttataagt gatgagaaat tcagtgatgc aaaaccttgg ctttctggta 60
tatctactac agatattaag ccaagggaat taactgttgt gcttggtaca tttggggctg 120
ggaagagttt cttgtacaag agtttcatga aaaggtctga gggtaaattc gtaacctttg 180
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gcaaagttgc caaagcaggt aggtcaaaga aggaagggtg ggatgtagta acttttgagg 300
tcttcctcag aaaagttgca ggattgaagg ctggccactg tgtgattttt gatgaggtcc 360
agttgtttcc tcctggatac atcgatctat gcttgcttat tatacgtagt gatgctttca 420
tttcacttgc cggtgatcca tgtcaaagca catatgattc gcaaaaggat cgggcaattt 480
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ggagtcagag tgctcaaatg aagaatggtt taaaacccac attcccctga gtaatctgga 1200
gtcaaccagg gctaggtggg tgggtaaaat ggccttgaaa gagtatcggg aggtgcgttg 1260
tggttatgaa atgactcaac aattctttga tgacat 1296

<210> 39
<211> 907
<212> DNA
<213> Rupestris stem pitting associated virus

<400> 39

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tctgtgtgaa aggaatcatg tgatatgaga attcccccat ttttgaaatt caacccagtt 120
gattcaccaa atgtgagtgt gagctgtttc attccaaagt aggactggac tatcttttc 180
tcctcaaaac tggaaaccaa aacggcatcc aaaggacctt ttgacctcgc caggagaaag 240
tcatgcatat tatggaagat tgcataatca gcgaaagcgg cagtcattga gccctttttg 300
aattgacatg gcagtcttga ttcgaacatt ggattcacaa acctcctgct ttcaatgtta 360
tacctatacg tcttgccctc aagcagtcta agtatgtcac tctgctcagc gcccaaaatt 420
gcccgatcct tttgcgaatc atatgtgctt tgacatggat caccggcaag tgaaatgaaa 480
gcatcactac gtataataag caagcataga tcgatgtatc caggaggaaa caactggacc 540
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aaagttacta catcccaccc ttccttcttt gacctacctg ctttagcaac tttgcagcta 660
tcatccattt caagatcatt tttgattgaa tttgctaaag cacgtctggg agaaacaaag 720
gttacgaatt taccctcaga ccttttcatg aaactcttgt acaagaaact cttcccagcc 780
ccaaatgtac caagcacgac agtcaactcc cttggcttaa tatcagtagt agatatacca 840
gaaagccaag gttttgcatc actgaacttc tcatcactta taacgccagt taggcccccc 900
agcaaac 907

<210> 40
<211> 1232
<212> DNA
<213> Rupestris stem pitting associated virus

<400> 40
agaatgctta tgctgagaat gagatgattg cattattttg catccggcac catgtaaggc 60
ttatagtaat aacaccggaa tatgaagtta gttggaaatt tggggaaagt gagtggcccc 120
tatgtggaat tctttgcctg aggtccaatc acttccaacc atgcgccccg ctgaatggtt 180
gcatgatcac ggctattgct tcagcacttg ggaggcgtga ggttgatgtg ttaaattatc 240
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tgatgtactt ggctgaagct tttgaggcct ttgacatttg tgcaaagtgc gacataaatg 360
gggaaattga ggtcattaac ccaaatggca agatttccgc cttgtttgat ataactaatg 420
agcacataag gcatgttgag aagatcagca atggccctca gagcataaaa atagatgagt 480
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gtgtcataag tgatgaaaag ttcagtgatg caaaaccttg gctttctggt atatcaactg 660
cggatattaa gccaagagag ctaactgtcg tgcttggcac atttggtgct ggaaagagtt 720
tcttgtataa gagtttcatg aagagatctg aaggaaaatt tgtaactttt gtttccccta 780
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atgactgctg cctttgctga ttatgcaatc tt 1232

<210> 41
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic based on Rupestris stem pitting
associated virus

<400> 41
gcttcagcac ttggaaggcg 20

<210> 42
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic based on Rupestris stem pitting
associated virus

<400> 42
cacacagtgg ccagcct 17

<210> 43
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic based on Rupestris stem pitting
associated virus

<400> 43
ggaggtgcgt tgtggttatg 20

<210> 44
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic based on Rupestris stem pitting
associated virus

<400> 44
ccctggcact gcacaccc 18

<210> 45
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic based on Rupestris stem pitting
associated virus

<400> 45
ggaggtgacc acattacg 18

<210> 46
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic based on Rupestris stem pitting associated virus

<400> 46
catcacgact tgtcacaaac c 21

<210> 47
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic based on Rupestris stem pitting associated virus

<400> 47
tgggcctcca cttcttc 17

<210> 48
<211> 16
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic based on Rupestris stem pitting associated virus

<400> 48
ggggttgcct gaagat 16

<210> 49
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic based on Rupestris stem pitting associated virus

<400> 49
acacctgctg tgaaagc 17

<210> 50
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic based on Rupestris stem pitting associated virus

<400> 50
ggccaaggtt cagtttg 17

<210> 51
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic based on Rupestris stem pitting associated virus

<400> 51
gatgaggtcc agttgtttcc 20

<210> 52
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic based on Rupestris stem pitting associated virus

<400> 52
atccaaagga ccttttgacc 20

<210> 53
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic based on Rupestris stem pitting associated virus

<400> 53
cttgatgagt acttgtc 17

<210> 54
<211> 17
<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic based on Rupestris stem pitting
associated virus

<400> 54
gcaaggattt ggatggc 17